

Date: 07/01/98  
Subject: CASTEX SYSTEMS REMOVAL, Jennings, Jefferson Davis, Louisiana  
From: Mike Ryan, OSC, U.S. EPA, Region 6 (214/665-2273)  
To: Director, OERR  
Charles A. Gazda, RPB, EPA Region 6  
Secretary, Louisiana Department of Environmental Quality (LDEQ)  
Case Officer, USCG NPFC, Central and Gulf Region Team  
Commanding Officer, USCG-D8(m)  
Commanding Officer, USCG Gulf Strike Team

POLREP NO: 17

Event: Removal Action  
Site ID#: Z663 (FPN 08-6-144)  
Start Date: 08/19/96  
Demobilization Date: N/A  
Completion Date: N/A  
Site Type: Inactive NOW Facility  
Site Latitude/Longitude: 30° 11' 20" North, 92° 36' 55" West

## I. SITUATION

### A. Site description

The Castex System Site is a non-hazardous oil-field waste (NOW) disposal facility that was abandoned in 1989 shortly after a fire and catastrophic failure of the produced water storage tank battery. The site is located approximately three miles southeast of Jennings, Jefferson Davis Parish, Louisiana. The facility is in a rural area and is situated adjacent to a marsh and one mile west of the Mermentau River.

### B. Description of threat

Approximately 9,700 barrels (bbls) of NOW fluids are contained in 19 aboveground storage tanks (ASTs), varying in condition from fair to poor. The failed storage tanks contained naturally occurring radioactive material (NORM) sediments that were spilled into the containment basin and mixed with oily sludge. The containment basin has been breached on the south side and is releasing oily water and NORM sediments into the marsh. The marsh flows into the Mermentau River, then through Grand Lake to the Gulf of Mexico. The facility also has eleven waste management units (WMUs) that contain approximately 20,400 bbls of oil-based material, 96,319 bbls of salt-base material, and 17,100 bbls of rainwater.

Chemicals of concern are barium, arsenic, benzene, crude oil waste, and NORM.

### C. Preliminary Assessment Results

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Air monitoring around the ASTs and WMUs for volatile organic compounds (VOCs), percent oxygen, and the percent lower explosive limit (LEL) indicated no readings significantly different from background. The soil in the primary containment basin has readings of 500 microRoentgen/hour (uR/hr), according to a 1995 LDNR survey, which qualifies the material as NORM by Louisiana regulations.

Preliminary results of EPA analytical data indicate that no area composite sample exceeded RCRA regulatory limits for TCLP Metals or Pesticides/PCBs. Analysis of AREA-J composite sample indicated 37 picoCuries/gram (pC/g) for Radium 226 and 15 pC/g for Radium 228. Analysis of the composite sample of tanks T11-T14 indicated 35 pC/g for Radium 226 and 16 pC/g for Radium 228. Analysis of AREA-Q composite sample indicated 4.2 pC/g for Radium 226 and 3.0 pC/g for Radium 228.

#### D. Site History/Background

Historical actions taken: The Louisiana Department of Natural Resources (LDNR) permitted the facility to begin disposal of NOW material in September of 1982. The facility accepted oil- and water- based drilling mud, drill cuttings, produced saltwater, and oily water. Saltwater was injected into the saltwater disposal (SWD) well and solids were stockpiled in WMUs for treatment. The LDNR ordered the facility closed in August of 1989, based on violations of Statewide Order No. 29-B, by Administrative Order No. UIC 89-2. The LDNR requested assistance from EPA Region 6 ERB in May of 1996.

## II. SITE INFORMATION

### A. Site Activities to Date

#### 1. Initial Removal Action (July 23 through September 26, 1996)

Initial removal actions can be referenced in POLREPs 1 through 7.

#### 2. Second Removal Action

For details of removal activities conducted up to June 23, 1998, see POLREPs 8 through 16.

Removal activities have been delayed due to heavy rains. CET is pumping the accumulated rainwater from WMU-H to Area M. CET is in the process of decontaminating heavy equipment, and securing the work site for demobilization planned for July 2. EPA, USCG, ERRS, and START are scheduled to return to the site by September 1998 to complete removal operations.

Prior to the heavy rainfall, CET was continuing to excavate WMU H to approximately six to ten feet. The contaminated material (drilling mud/soil/sand) was stockpiled in Areas O and P. CET completed a roadway of limestone and gravel, running north of and parallel to the

access road, to aid in the transportation of the stockpiled material off site. No soil has been transported off site at this time

CET also completed the removal of material, and the dismantlement and disposal of all ASTs and box tanks (TBs) remaining on site; except TB7, which is an underground TB that will be back filled at a later date. Non-contaminated scrap metal was transported to LaRose Scrap & Salvage, Inc., in Intracoastal City, Louisiana, for recycling.

All metal cut from ASTs T10 through T14 was checked for NORM contamination by the Radiation Safety Officer (RSO) from Growth Resources, Inc, (GRI). Contaminated metal was transported to the GRI facility in Gibson, LA for decontamination. The decontaminated metal will be sent for scrap, and the removed NORM held at the GRI facility until disposal is arranged.

GRI conducted a NORM survey of the surface in and around Area J. Readings between 40 and 450 uR/hr were detected within the tank berm area. On the berm, readings as high as 110 uR/hr were detected. And outside the containment berm, within 30 feet, readings of 10-40 uR/hr were detected; the highest being those recorded near the breach in the southern portion of the berm.

GRI also conducted a subsurface NORM survey in and around Area J. A total of forty-seven soil borings were made, between 3 1/2 and 5 feet deep; and readings were recorded at each six-inch depth interval. Results showed that the depth of the NORM contamination ranges from six to thirty inches. Approximately forty soil samples were collected, and each analyzed in the field utilizing a single channel Ra-226 analyzer. position of NOW material will depend on LDNR's agreement of proposed EPA removal actions.

#### C. Key Issues:

A Deed and Title Search and Review is on-going to determine current status of PRPs for enforcement action and cost recovery through the fund center.

### III. PROPOSED ACTIONS

Excavation of NOW solids and disposal of same at a state permitted facility. Excavation of NORM contaminated material and disposal of same at a state permitted facility. Plug and Abandon (P&A) the SWD well and restore site to grade.

### IV. COST INFORMATION

#### 1. Initial Removal Action (July 23 through September 26, 1996)

SITE TOTAL (July 23 through September 26, 1996): \$133,946.52

Itemized cost information for the initial removal action can be referenced in POLREPs 1 through 7.

## 2. Second Removal Action (March 10 through COB June 29, 1998)

Contractor (CET):	\$900,000	
Personnel		\$175,337.16
Equipment		\$ 4,619.84
Other		\$562,290.99
Contractor Total:		\$742,247.99

Government:	\$100,000	
EPA		\$ 28,058.00
USCG-GST		\$ 30,249.52
START		\$ 25,251.00
Government Total		\$ 83,558.52

SITE TOTAL (March 10 through COB June 29, 1998): \$825,806.51

COMBINED SITE TOTAL: \$959,753.03

## V. DISPOSITION OF MATERIAL

SCRAP METAL: 73.48 tons of scrap metal have been transported to LaRose Scrap and Salvage, Inc., in Broussard, LA.

NORM WASTE: 100,000 pounds of NORM contaminated steel, i.e. > 20 uR/hr, have been transported to the GRI facility in Gibson, LA; and 1,260 barrels (bbls) of NORM contaminated tank bottom sludge, i.e. > 30 pCi/g, have been transported to the LOTUS L.L.C. facility in Andrews, TX.

NOW WASTE: 3,055 bbl tank sludge, 1,800 bbl salt water, and 110 bbl washout water have been transported to US Liquids, in Jennings, LA.

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